

Application No. 09/844,251
Filed: April 27, 2001
TC Art Unit:2832
Confirmation No.:8919

REMARKS

In the most recent Office Action, claims 1-20 were pending. Claims 6-11 are withdrawn from consideration. Claims 1-5 and 16-19 are rejected. Claim 12-15 and 20 are objected to.

In response, claim 1 is amended. Accordingly, claims 1-20 are pending in the present application. No new matter is added.

Applicant thanks the Examiner for the thorough search and consideration of the present application, and responds to the comments in the Office Action as follows.

Premature Final Rejection

The most recent Office Action states that Applicant's amendment necessitated the new grounds of rejection presented in the Office Action, thereby resulting in the action being made final. However, the newly cited prior art of the disclosure by Streeter et al. is cited for subject matter that should have been searched and applied in the original Office Action as it is applied in the present Office Action. Accordingly, the amendments to the claims in response to the first Office Action in the present application did not necessitate new grounds for rejection in that the cited prior art reference of Streeter et al. does not present grounds for rejection that could not have been originally applied, or otherwise change the issues under consideration present in the original application.

Accordingly, Applicant respectfully requests that the finality of the present Office Action be withdrawn and that the present amendment be entered and considered on the merits. MPEP §706.07(c-e).

-7-

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In the alternative, Applicant respectfully submits that the present response raises no new issues that would require any further search or consideration by the Examiner and respectfully requests that the present response be entered and considered on the merits as placing the claims of the application in condition for allowance or in better form for appeal, or narrowing the issues for consideration on appeal.

Claim Rejections - 35 U.S.C. §112

The Office Action states that claim 1 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention. In particular, the Office Action states that language used in claim 1 is unclear. The rejection is respectfully traversed.

Without acceding to the relevance of correctness of the position stated in the Office Action, Applicant has amended claim 1 to improve the clarity of the recitation of claim 1. It is Applicant's intention to broaden the scope of claim 1 with the present amendment, while more particularly stating the nature of the invention. Entry is respectfully requested.

In view of the amendment to claim 1, Applicant respectfully submits that the rejection of claim 1 under 35 U.S.C. §112, second paragraph, is overcome and respectfully requests that it be reconsidered and withdrawn.

Claim Rejections - 35 U.S.C. §102

The Office Action states that claims 1-3, 5 and 16-19 are rejected under 35 U.S.C. §102(e) as being anticipated by Streeter et al. (US Patent No. 6,396,371). In particular, the Office

-8-

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Action states that Streeter et al. discloses each and every element recited in claims 1-3, 5 and 16-19 of the present invention. The rejection is respectfully traversed.

Claim 1 of the present invention is amended to clarify the recitation of the present invention. Claims 2-3, 5 and 16-19 ultimately depend upon and further limit claim 1 and should be allowable for any reason that claim 1 is allowable and additionally because of the further recitation provided in each of the dependent claims.

The disclosure by Streeter et al. appears to discuss a conventional microswitch contact that is wetted with liquid metal that is formed through the addition of heat applied to the contact. That is, the disclosure by Streeter et al. is directed to improving the reliability of contacts in a microswitch by supplying them with a liquid metal, the liquid metal being formed through the deposition of solid metal that is then melted with the application of heat from a heater disposed proximate to the contacts. The disclosure by Streeter et al. does not, in fairness, discuss the preparation of a microswitch contact by exposing the microswitch contact to a fluid for a set period of time to react with the contact to lower contact resistance. Streeter et al. instead appears to address the problem of shorted switches where contacts may become welded together by using a liquid metal other than mercury, which has manufacturability drawbacks. The present invention, in contrast, is directed to manufacturing a microswitch contact that has a low contact resistance. The disclosure by Streeter et al. fails to discuss a lowered contact resistance, since the focus is mainly on improving reliability of microswitch contacts. Indeed, the only apparent discussion of microswitch contact resistance is related to

-9-

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increasing contact resistance to improve heating of the contact to obtain the desired liquid metal contacts (column 9, line 66 - column 10, line 7). Accordingly, the disclosure by Streeter et al. fails to teach a number of elements recited in claims 1-3, 5 and 16-19. Applicant therefore respectfully requests that the rejection of those claims under 35 U.S.C. §102(e) over the disclosure by Streeter et al. be reconsidered and withdrawn.

Claim Rejections 35 U.S.C. §103

The Office Action states that claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Streeter et al. in view of Kasai et al. (US Patent No. 6,483,395). In particular, the Office Action states that Streeter et al. discloses all the elements of claim 4 with the exception of ruthenium contacts, which are disclosed by Kasai et al. in an obvious combination. The rejection is respectfully traversed.

As discussed above, claim 4 ultimately depends upon claim 1, and is thought to be allowable over Streeter et al. for the same reasons as discussed above with respect to the rejection of claim 1 under 35 U.S.C. §102(e). That is, claim 4 recites a number of elements that are not taught or suggested in the disclosure by Streeter et al., including the manufacture of a microswitch contact by exposing the contact to a fluid operable to react with the contact material to lower contact resistance. The disclosure by Kasai et al. also fails to teach or suggest these elements, so that the combination with Streeter et al. still fails to teach or suggest a number of limitations recited in claim 4.

In addition, the disclosure by Kaisai et al. appears to suggest the use of ruthenium for contact switches to avoid adhesion between contacts. There is no discussion, suggestion or

-10-

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motivation by supplied by Kaisai et al., or the combination with Streeter et al., to reduce a contact resistance as recited in claim 4 of the present invention. Accordingly, Applicant respectfully submits that claim 4 includes a number of limitations that are not taught or suggested in the cited prior art references of Streeter et al. and Kasai et al. either alone or in combination. Furthermore, Applicant respectfully submits that there is no teaching, suggestion or motivation in the references themselves or in knowledge generally available to one of ordinary skill in the art to combine the references or modify their teachings to arrive at the invention recited in claim 4. MPEP §2142. Applicant therefore respectfully submits that the rejection of claim 4 under 35 U.S.C. §103(a) over Streeter et al. and Kaisai et al. is overcome, and respectfully requests that it be reconsidered and withdrawn.

Allowable Subject Matter

Applicant gratefully acknowledges the finding that claims 12-15 and 20 are allowable if rewritten in independent form to include all the limitations of the base claim and any intervening claims. Applicant believes that claims 12-15 and 20 are allowable as dependent upon claim 1, which is believed to be allowable over the cited prior art references as discussed above. Applicant thus respectfully requests notice to the effect of allowability of claims 12-15 and 20.

Conclusion

Applicant respectfully submits that in view of the above amendments and discussion, the application is now in condition for allowance, and earnestly solicits notice to that effect. It is

-11-


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believed that the present amendment raises no new issues that would require any further search or consideration on the part of the Examiner and therefore permits entry of the present amendment as placing the claims in condition for allowance. Accordingly, entry and notice to the effect of allowance is respectfully requested. The Examiner is encouraged to telephone the undersigned attorney to discuss any matter that would expedite allowance of the present application.

Respectfully submitted,

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-12-

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